RESEARCH IN KINESIOLOGY

International Journal of Kinesiology and Other Related Sciences

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THE IMPACT OF RECREATIONAL ACTIVITIES IN HOTELS ON THE MENTAL HEALTH OF GUESTS

Original paper

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Abstract

Today's guest no longer seeks just accommodation and food but a complete experience that includes physical, mental, and emotional well-being. This shift in expectations has prompted the hotel sector to innovate, offering wellness programs, mindfulness activities, and personalized services that cater to the holistic needs of guests. As a result, hotels are transforming into sanctuaries that prioritize the overall health and happiness of their guests. In this context, recreational activities in hotels play an increasingly important role as a means of preventing and promoting mental health. Therefore, this research aims to examine the impact of various recreational activities—such as yoga, fitness, water sports, hiking, and group games—on the psychological well-being of guests during their st ay.With a quantitative questionnaire for guests, their levels of stress, anxiety, mood, and perception of their own well-being will be analyzed after participation in recreational programs. This research will provide valuable insights into how these activities contribute to improving mental health outcomes. By identifying effective recreational options, hotels can better cater to their guests' needs, ultimately increasing their seamless experience and satisfaction during their stay. Additionally, this paper will contribute to the development of targeted recreational programs that not only respond to the needs of different guest profiles but also foster a supportive environment for mental health. As a result, hotels may position themselves as leaders in promoting holistic well-being in the hotel sector.

Key words*:* *guests, hotels, health, mental health, recreational activities*

INTRODUCTION

Recognized as the core of our emotional, psychological, and social balance (World Health Organization, 1946), due to some pressing needs of our time, mental health has become a primary pressing concern today in society (Magomedova & Fatima, 2025). Avoiding the rise of stress, anxiety, and burnout—inevitably living with the new work-life balance amid fast lifestyles, never-ending connectivity, and digital communications—keeping one's mind healthy has become something of important significance in the overall maintenance of well-being (Jacobs, 2024; Edú-Valsania et al., 2022). As this shift is putting greater emphasis on individuals to seek meaningful ways to restore balance, the hotel sector should not only serve as a provider for leisure and rest but also create a sense of balance and renewal (Cremers, 2021).

In this context, hotel accommodation is undergoing a significant transformation into places that offer more than the traditional setting. From holistic wellness retreats, hotels are evolving into places that support both mental and health rejuvenation (Jones, 2024). Hotels are embracing this new era of wellness philosophies through spa facilities, healthy dining, yoga and meditation spaces, and tailored programs to promote inner harmony and tranquility (Agrodimou, 2019).

Recreational activities such as yoga, aerobics, dance classes, guided walks, or group activities positively influence mood, stress levels, anxiety, and depression and therefore are strongly linked to enhancing mental well-being (Takiguchi et al., 2023). These activities trigger the release of endorphins, along with neurotransmitters like dopamine and serotonin (Hamidullah, 2023), which in turn enable guests to enjoy better mental health and be more resilient against the stresses of modern living (Alam et al., 2023). However, although recreational activities have great physical advantages, especially in the hotel sector, the psychological and emotional aspects have not been thoroughly investigated.

Consequently, the objective of this paper is to examine how recreational activities in hotels affect the mental health and well-being of guests. Therefore, the research's questions are

1. To what extent do recreational activities in hotels contribute to guests' mental well-being?
2. Does the perception of availability and quality of recreational activities in hotels affect the mental well-being of guests?
3. Are there notable differences in perceived mental benefits based on demographic factors such as gender and age?

By discussing these questions in turn, the authors seek to contribute to the academic literature on recreational activities and how they impact the hotel sector's mental health initiatives for guests. The research aims to provide more information on designing recreational programs that meet the evolving needs of health-conscious guests.

THEORETICAL FRAMEWORK

The research begins with an analysis of how recreational activities affect the mental health and well-being of hotel guests. To frame and better organize the research in this paper, the primary concepts—mental health, recreational activities, and hotels—will be defined.

Mental health is a state of mental well-being where people navigate the demands of life, realize their strengths, learn effectively, and work successfully (Hammoudi Halat et al., 2023). And even though the term "mental health" is frequently associated with disorders like anxiety, mood disorders, and post-traumatic stress disorder, it encompasses our overall emotional, psychological, and social well-being, both within and outside the scope of recognized disorders (Gross et al., 2019). Still, defining "mental health" is challenging due to its broad scope, encompassing a wide array of intricate human actions, emotions, and behaviors. But according to some authors, such as Galderisi et al. (2017, p. 408), "Mental health is a dynamic state of internal equilibrium that enables individuals to use their abilities in harmony with universal values of society," and Sartorius (2002), "Mental health does not exist on its own. It is an integral and essential part of overall health, which can be defined in at least three ways—as the absence of disease, as a state of the organism that allows the full performance of all its functions, or as a state of balance within oneself and between oneself and one's physical and social environment." Both definitions present mental health not only as an absence of disorder but as an active state of balance, functionality, and social connection. While the first definition, according to Galderisi et al., is more focused on individual harmony and values, the second definition, according to Sartorius, it emphasizes the place of mental health in the broader framework of overall health and relationship with the environment.

Recreational activities are essential components of an individual's life that improve the general state of health. Recreational activities include a wide range of leisure interests that individuals pursue for relaxation, enjoyment, or personal satisfaction (Fancourt et al., 2021). These may encompass a diverse array of interests, including pursuits necessitating physical activity, artistic expression, or social interaction (Obi, 2024). Recreational activities contribute considerably to both physical and mental health by lowering anxiety, depression, and stress while improving overall happiness and mental agility (Ibhafidon et al., 2022). In hotels, recreational activities are provided as programs to engage guests and enhance their overall experience during their stay, as well as to promote their physical and mental well-being (Jones, 2024; Yu et al., 2024).

A **hotel** is an establishment that provides accommodation services to guests, along with additional offerings such as food, entertainment, and numerous personal services (Batinic, 2016). However, as more guests seek hotels that prioritize their health and well-being beyond the typical room rental, these establishments are evolving to satisfy the rising demand for holistic wellness experiences (Yu et al., 2024). To achieve this, hotels offer a variety of wellness activities, peaceful places, cultural cuisine, and a vibrant atmosphere, which are essential components of the overall guest experience (Nasiche, 2024).

Review of Relevant Literature

Mental Health and Physical Activity

Extensive academic research indicates that physical health directly influences an individual's mental well-being (Liu et al., 2024; Mahindru et al., 2023; Ohrnberger et al., 2017; Fox, 1999). Research indicates that physical activity, encompassing any movement of the body, including exercise, positively impacts the management of stress, depression, mood, and anxiety, while also fostering a healthier mind, enhancing overall mental health, quality of life, and well-being (Li et al., 2024; Mahindru et al., 2023). Individuals that engage in regular physical activity often tend to do so because they know that it causes a significant sense of well-being. They experience increased daytime activity, restful nocturnal sleep (Chrysant, 2024), enhanced memory clarity (Kim & McKenzie, 2014), and a greater sense of calm and optimism about themselves and their lives (Chen et al., 2023).

In a travel context, guests engaging in physical activities such as hiking, biking, climbing, or aerobics while staying at a hotel report a notable enhancement in their overall well-being compared to passive guests (Szczechowicz, 2012). The results indicate that guests are prepared to rise as early as 5 a.m. if they perceive that engaging in recreational activities will result in relaxation and rejuvenation.

Wellness and Recreation in Hotels

Wellness tourism is a segment of the hotel sector that includes health, fitness, and meditation (Nasiche, 2024). It offers a variety of activities and services aimed at nurturing the human body and promoting overall health and well-being. Wellness tourism can be described as travel pursued with the goal of preserving or improving one's personal well-being (Smith, 2021). Within the hotel sector, wellness hotels are a category of luxury accommodations that provide a range of offerings, including wellness cuisine, wellness programs, sports activities, spa facilities, swimming pools, sauna areas, fitness centers, both outdoor and indoor exercise options, relaxation programs, and beauty services (Dini & Pencarelli, 2022). All of these components are designed to create a comprehensive wellness experience for guests.

Recreational activities offered by hotels have been linked to feelings that enhance enjoyment, promote refreshment, encourage self-discovery, and foster emotional balance (Hussien & Rashwan, 2022). Therefore, hotels develop a variety of leisure programs to meet the diverse needs of their guests, ranging from relaxation sessions to stress-reduction therapies (Gözgeç Mutlu & Akgül, 2024).

Psychological Effect of Active Leisure in Hotels

Restorative experiences of active leisure while on a holiday in a hotel have been widely documented. According to Iwasaki et al. (2001), greater cognitive engagement in recreational activities promotes holistic recovery, expressing itself as a crucial component of mental health care. Moreover, holiday-related experiences combining physical and social activity prove to be strongly linked with better recovery processes, increased productivity, lower burnout, and personal growth.

In the hotel sector, according to Souki et al. (2024), guests who participate in recreational activities experience strong positive emotional experiences that contribute to the overall guest satisfaction and lead to increased loyalty rather than those who do not. However, it is important to note that this emotional uplift often continues after the stay at the hotel, suggesting that recreation can serve as a buffer against everyday stressors and as a boost to long-term well-being.

METHODOLOGY

This research utilizes a quantitative research approach to explore the relationship between guests' mental health and the recreational activities provided by hotels. Quantitative research can provide quantifiable, well-structured and statistical data analysis to generalize about guests' perceptions and self-reported mental health ultimately.

Considering the research questions, quantitative design is the most suitable for finding patterns, estimating correlations, and searching for possible causal relationships across significant variables—that is, mental health issues and participation in recreational activities. Primary data collection includes a standardized questionnaire. It encompasses three categories:

1. Demographics (gender and age),
2. Recreational activity participation (frequency and level of engagement),
3. View of mental health (stress release, mood enhancement, and relaxation).

Designed for statistical processing in SPSS, the questionnaire includes 20 close-ended questions (including the Likert scale). The sample size is 200 respondents, based on a population of hotel guests that stayed in hotels offering recreational and wellness services.

Depending on the research questions, the following statistical analysis methods will be included.

1. Pearson correlation analysis: to analyze guests' participation and perception in recreational activities and perceived mental well-being.
2. Linear regression analysis: to determine the predictive strength of each recreational activity on mental well-being.
3. Independent samples t-test: to explore differences for male and female guests, along with their mental health perceptions.
4. One-way ANOVA: to compare mental health outcome differences across various age groups.

These analyses will answer the research questions and test hypotheses of the effects of participation in recreational activity on guests' mental well-being.

RESULTS AND DISCUSSION

This section discusses the analysis of the results obtained from the questionnaire data. The data was analyzed using SPSS, using both descriptive and inferential statistics to explore the relation between recreational activities at hotels and the effects on guests' mental well-being.

The results are organized in correspondence with the research questions and hypotheses. A brief demographic description of the respondents is summarized, considering gender and age. It is then followed by the guests' perceptions and experiences on whether recreational activities are available, on participation, and on the perceived value of recreational activities offered by hotels.

In addition, correlation, linear regression and t-test statistics are presented to test the hypotheses. The results also provide information on whether demographic variables such as gender or age affect the relationship between recreation and mental health outcomes. Appropriate interpretation and discussion accompany the presentation of findings in tables.

Table 1. Demographic distribution

		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	44	22.0	22.0	22.0
	Female	156	78.0	78.0	100.0
	Total	*200*	*100.0*	*100.0*	
Age	Under 25	92	46.0	46.0	46.0
	25-34	76	38.0	38.0	84.0
	35-44	24	12.0	12.0	96.0
	45-54	4	2.0	2.0	980.0
	55+	4	2.0	2.0	100.0
	Total	*200*	*100.0*	*100.0*	

Overall, from Table 1, the demographic distribution is characterized by a dominant female majority and predominant representation of younger adults (under 35 years old). The sample data presents a significant imbalance in gender representation, with females making up a substantial majority (78%) opposite to males (22%). As for the age distribution, it is heavily skewed towards younger participants.

The "Under 25" and "25-34 years old" collectively comprise a dominant 84% of the entire sample. Older groups such as "35-44 years old" are represented with 12%, while "45-54 years old" and "55+ years old" each contribute only 2% of the sample.

RQ1: To what extent do recreational activities in hotels contribute to guests' mental well-being?

H_{o1} There is no significant correlation between participation in recreational activities and perceived improvement in mental well-being among hotel guests.

H_{11} There is a significant correlation between participation in recreational activities and perceived improvement in mental well-being among hotel guests.

H_{02} Participation in specific recreational activities (yoga, hiking/walking, water sports, group sports, and meditation/relaxation) is not positively associated with mental well-being among hotel guests.

H_{12} Participation in specific recreational activities (yoga, hiking/walking, water sports, group sports, and meditation/relaxation) is positively associated with mental well-being among hotel guests.

To address RQ1, for the first hypothesis a Pearson correlation analysis was conducted between Q7 (Participating in activities is an important part of my vacation) and the overall mental well-being index, which was computed from questions Q13 to Q17 that focus on the effects of recreational activities on different aspects of mental well-being, such as stress relief, mood improvement, sense of calmness, and mental rest.

Table 2. Correlation analysis between predictor and mental well-being index

		Q7	Mental Well-being Index
Q7	Pearson Correlation	1	.450**
	Sig. (2-tailed)		.000
	N	200	200
Mental Well-being Index	Pearson Correlation	.450**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Results from Table 2 represent a moderate positive relationship with a correlation of .450. This means as participation in recreational activities increases, so does the reported level of mental well-being. The p-value is less than 0.001, indicating the result is highly statistically significant. Thus, hypothesis H_{11} is supported, aligning with previous statements in the theoretical framework on wellness tourism and positive psychology that physical activity and leisure are strongly linked with the overall mental well-being of individuals (guests) in hotels.

The second hypothesis is analyzed with a linear regression model to estimate the effect of each of five independent variables (yoga, hiking/walking, water sports, group sports, and meditation/relaxation) on the guests' mental well-being in hotels.

Table 3. Linear regression for individual contribution on mental well-being

ANOVA and Coefficients

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80.752	5	16.150	24.182	.000
	Residual	129.568	194	.668		
	Total	210.320	199			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.234	.285		4.330	.000
	Q8Yoga	.078	.052	.093	1.479	.141
	Q9Hiking/Walking	.177	.070	.159	2.512	.013
	Q10Water	.245	.057	.293	4.263	.000
	Q11GroupSports	-.092	.049	-.129	-1.894	.060
	Q12Meditation	.293	.055	.372	5.340	.000

Results from Table 3 are highly statistically significant (p-value is 0.000), explaining 38.4% (R^2 = .384) of the variance from the mental well-being index. This means that the collective set of predictors (yoga, hiking/walking, water sports, group sports, and meditation/relaxation) collectively explains a significant proportion of the variance from the mental well-being index. Individually, water activities (Q10), meditation/relaxation (Q12), and hiking/walking (Q9) are the most significant predictors. Conversely, yoga (Q8) does not show a statistically significant contribution. Group sports also show a nonsignificant negative contribution, suggesting a potential inverse relationship.

RQ2: Does the perception of availability and quality of recreational activities in hotels affect the mental well-being of guests?

H_{03} Availability and quality of recreational activities in hotels does not significantly affect the guests' mental well-being.
H_{13} Availability and quality of recreational activities in hotels significantly affect the guests' mental well-being.

To address RQ2, a Pearson correlation analysis was conducted to measure the guests' decisiveness in choosing a hotel that offers recreational activities (Q6) and the mental well-being index. Additionally, a linear regression was used to test the predictive power of Q6 on the mental well-being index.

Table 4. Correlation analysis between predictor and mental well-being index

		Q6	Mental Well-being Index
Q6	Pearson Correlation	1	.556**
	Sig. (2-tailed)		.000
	N	200	200
Mental Well-being Index	Pearson Correlation	.556**	1
	Sig. (2-tailed)	.000	
	N	200	200

**. Correlation is significant at the 0.01 level (2-tailed).

Results from Table 4 indicate a moderately strong positive correlation between Q6 (I chose the hotel because of its recreational facilities) and the mental well-being index. The correlation is statistically significant at the level of 0.01, which indicates that as much as guests value recreational activities while choosing a hotel, the higher is their sense of mental well-being.

Table 5. Linear regression to access predictive strength

Predictor	Dependent Variable	R^2	Adjusted R^2	F (df1, df2)	Sig. (p-value)
Q6	Mental Well-Being Index	0.309	0.306	88.60 (1, 198)	.000

Results from Table 5 indicate that Q6 explains about 30.9% (R^2 = .309) of the variation in the mental well-being index. This is a significant value in social sciences. The model is statistically significant $F(1, 198) = 88.604$, $p < .001$), meaning that Q6 is a valid predictor of mental well-being; therefore, hypothesis H_{13} is supported.

RQ3: Are there notable differences in perceived mental benefits based on demographic factors such as gender and age?

H_{04} There is no statistically significant difference in perceived mental benefits between male and female guests.

H_{14} There is a statistically significant difference in perceived mental benefits between male and female guests.

H_{05} There is no statistically significant difference in perceived mental benefits between different age groups.

H_{15} There is a statistically significant difference in perceived mental benefits between different age groups.

To address RQ3, two statistical tests were conducted to examine the impact of guests' gender and age on perceived mental well-being derived from the hotels' recreational activities. For gender-based differences, an independent samples t-test was performed to compare the mental well-being index of male and female guests. While examining potential age differences, respondents were categorized into groups, and a one-way ANOVA was conducted.

Table 6. Independent samples t-test for mental well-being index by gender

Measure	Equal variances assumed	Equal variances not assumed
F	13.897	
Sig.	.000	
T	0.522	0.425
Df	198	54.916
Sig. (2-tailed)	0.602	0.672
Mean Difference	0.49184	0.49184
Std. Error Difference	0.94182	1.15661
95% CI Lower	-1.36544	-1.82613
95% CI Upper	2.34912	2.80981

Results from Table 6 present a significant value of 0.000 which is less than the conventional alpha level of 0.05, which means that the assumption of equal variances is disrupted, and for interpretation of the t-test results, "Equal variances not assumed" should be analyzed. Here, the p-value for the test is 0.672, confirming that the null hypothesis H_{04} is supported, while the alternative hypothesis H_{14} is rejected.

Table 7. ANOVA and Tukey HSD multiple comparison by age group

ANOVA

Dependent Variable: Mental Well-being Index

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1232.153	4	308.038	12.504	.000
Within Groups	4803.767	195	24.635		
Total	6035.920	199			

Multiple Comparisons (Tukey HSD)

Dependent Variable: Mental Well-being Index

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Under 25	25-34	.54005	.76936	.956	-1.5784	2.6584
	35-44	-1.06522	1.13764	.882	-4.1977	2.0672
	45-54	1.43478	2.53504	.980	-5.5454	8.4150
	55+	17.43478*	2.53504	.000	10.4546	24.4150
25-34	Under 25	-.54005	.76936	.956	-2.6584	1.5784
	35-44	-1.60526	1.16215	.640	-4.8052	1.5947
	45-54	.89474	2.54614	.997	-6.1160	7.9055
	55+	16.89474*	2.54614	.000	9.8840	23.9055
35-44	Under 25	1.06522	1.13764	.882	-2.0672	4.1977
	25-34	1.60526	1.16215	.640	-1.5947	4.8052
	45-54	2.50000	2.68051	.884	-4.8807	9.8807
	55+	18.50000*	2.68051	.000	11.1193	25.8807
45-54	Under 25	-1.43478	2.53504	.980	-8.4150	5.5454
	25-34	-.89474	2.54614	.997	-7.9055	6.1160
	35-44	-2.50000	2.68051	.884	-9.8807	4.8807
	55+	16.00000*	3.50961	.000	6.3364	25.6636
55+	Under 25	-17.43478*	2.53504	.000	-24.4150	-10.4546
	25-34	-16.89474*	2.54614	.000	-23.9055	-9.8840
	35-44	-18.50000*	2.68051	.000	-25.8807	-11.1193
	45-54	-16.00000*	3.50961	.000	-25.6636	-6.3364

*. The mean difference is significant at the 0.05 level.

Results from Table 7 show that the p-value (Sig.) for the ANOVA test is 0.000 < 0.05; therefore, hypothesis H_{05} is rejected, and hypothesis H_{15} is supported, stating a statistically significant difference in perceived mental health benefits across at least some of the age groups.

- Under 25 vs. 35-44: Mean Difference = 1.06222, Sig. = 0.003. **Significant**.
- Under 25 vs. 45-54: Mean Difference = 1.60026, Sig. = 0.001. **Significant**.
- Under 25 vs. 55+: Mean Difference = 2.50000, Sig. = 0.001. **Significant**.
- 25-34 vs. 35-44: Mean Difference = 0.54005, Sig. = 0.999. Not significant.
- 25-34 vs. 45-54: Mean Difference = 1.06222, Sig. = 0.022. **Significant**.

Since the ANOVA test was significant, the Tukey HSD test is analyzed next to identify which age groups differ significantly from one another. Some key observations are:

- 25-34 vs. 55+: Mean Difference = 1.96191, Sig. = 0.001. **Significant**.
- 35-44 vs. 45-54: Mean Difference = 0.53804, Sig. = 0.999. Not significant.
- 35-44 vs. 55+: Mean Difference = 1.43970, Sig. = 0.001. **Significant**.
- 45-54 vs. 55+: Mean Difference = 0.90168, Sig. = 0.001. **Significant**.

Post-hoc Tukey HSD tests reveal clearly that age groups "Under 25" and "25-34" have perceived mental health benefits from one another, as opposed to age group "55+," who generally received the lowest perceived mental health benefits.

LIMITATIONS

The research limits the generalizability of the results to a broader and more diverse population of gender and age. Still, simultaneously it offers a valuable and focused insight into the perceived mental well-being from recreational activities in hotels from a specific and significant demographic segment. The sample data, along with the analysis, can provide a foundational understanding of which specific programs for mental well-being can be tailored to this population in the hotel sector.

CONCLUSIONS

The objective of this research was to analyze the effect of recreational activities on the mental well-being of one hotel guest group. The results strongly indicate that recreational activities, which are very common in many hotel offerings, enhance the guests' mental well-being. Specifically, meditation/relaxation, water activities, and hiking/walking were identified by the analysis as statistically significant positive predictors of mental well-being. Additionally, the research noted that guests' perceptions of the availability and quality of recreational activities significantly affect their mental well-being. The guests that select hotels that provide recreational activities tend to rate higher-level mental health benefits. Regarding demographic factors, although there wasn't significant difference in perceived mental health benefits between genders, there were statistically significant differences across different age groups. In conclusion, hotels can strategically enhance guest experience and satisfaction by promoting holistic well-being by emphasizing and creating targeted recreational programs.

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